

AMENDMENTS TO THE CLAIMS

The following claims will replace all prior versions and listings of claims in the application, and are marked to show changes.

Claim 1 (Currently Amended). A solid state imaging device comprising:

a solid state image pickup device having an effective pixel region in one surface thereof;
a light-transparent cover arranged opposite to said effective pixel region and having planar dimensions smaller than those of said solid state image pickup device; ~~and~~
an adhering section for adhering said solid state image pickup device and said light-transparent cover; and
connection terminals, said adhering section disposed at least in a portion of a region where said cover opposes said pickup device and such that said connection terminals are exposed.

Claim 2 (Original). A solid state imaging device according to Claim 1, wherein said adhering section contains photosensitive adhesive.

Claim 3 (Original). A solid state imaging device according to Claim 2, wherein a space is formed between said effective pixel region and said light-transparent cover, and wherein said adhering section is formed outside said effective pixel region in said one surface of said solid state image pickup device.

Claim 4 (Original). A solid state imaging device according to Claim 3, wherein said adhering section seals the outer periphery of said space.

Claim 5 (Original). A solid state imaging device according to Claim 1, wherein a space is formed between said effective pixel region and said light-transparent cover, and wherein said adhering section is formed outside said effective pixel region in said one surface of said solid state image pickup device.

Claim 6 (Currently Amended). A semiconductor wafer on which a plurality of solid state image pickup devices each having an effective pixel region in one surface thereof are formed, comprising:

a light-transparent plate arranged opposite to said effective pixel region and having planar dimensions smaller than those of said solid state image pickup device; ~~and~~

an adhering section for adhering said solid state image pickup device and said light-transparent plate; and

connection terminals, said adhering section disposed at least in a portion of a region where said plate opposes said pickup device and such that said connection terminals are exposed.

Claim 7 (Original). A semiconductor wafer according to Claim 6, wherein said light-transparent plate is divided so as to form light-transparent covers each having planar dimensions smaller than those of said solid state image pickup device.

Claim 8 (Original). A semiconductor wafer according to Claim 7, wherein said adhering section contains photosensitive adhesive.

Claim 9 (Original). A semiconductor wafer according to Claim 7, wherein a space is formed between said effective pixel region and said light-transparent cover, and wherein said adhering section is formed outside said effective pixel region in said one surface of said solid state image pickup device.

Claim 10 (Original). A semiconductor wafer according to Claim 6, wherein said adhering section contains photosensitive adhesive.

Claim 11 (Currently Amended). A semiconductor wafer on which a plurality of solid state image pickup devices each having an effective pixel region in one surface thereof are formed, comprising:

a light-transparent cover arranged opposite to said effective pixel region and having planar dimensions smaller than those of said solid state image pickup device; ~~and~~
an adhering section for adhering said solid state image pickup device and said light-transparent cover; and
connection terminals, said adhering section disposed at least in a portion of a region where said cover opposes said pickup device and such that said connection terminals are exposed.

Claim 12 (Original). A semiconductor wafer according to Claim 11, wherein said adhering section contains photosensitive adhesive.

Claim 13 (Original). A semiconductor wafer according to Claim 12, wherein a space is formed between said effective pixel region and said light-transparent cover, and wherein said adhering section is formed outside said effective pixel region in said one surface of said solid state image pickup device.

Claim 14 (Original). A semiconductor wafer according to Claim 13, wherein said adhering section seals the outer periphery of said space.

Claim 15 (Original). A semiconductor wafer according to Claim 11, wherein a space is formed between said effective pixel region and said light-transparent cover, and wherein said adhering section is formed outside said effective pixel region in said one surface of said solid state image pickup device.

Claim 16 (Currently Amended). An optical device module comprising: a lens; a lens retainer for retaining said lens; and a solid state imaging device; wherein

said solid state imaging device comprises:

a solid state image pickup device having an effective pixel region in one surface thereof;

a light-transparent cover arranged opposite to said effective pixel region and having planar dimensions smaller than those of said solid state image pickup device; ~~and~~

an adhering section for adhering said solid state image pickup device and said light-transparent cover; and

connection terminals, said adhering section disposed at least in a portion of a region where said cover opposes said pickup device and such that said connection terminals are exposed; and wherein

said light-transparent cover is arranged opposite to said lens and inside said lens retainer.

Claims 17-29 (Canceled).

Claim 30 (Currently Amended). An optical device module comprising:

a wiring board on which wiring is formed;

an image processor adhered to said wiring board and electrically connected to said wiring;

a solid state imaging device in which a light-transparent cover having planar dimensions smaller than those of a solid state image pickup device is ~~attached~~ adhered through an adhering section opposite to ~~the~~ an effective pixel region of said solid state image pickup device, and which is adhered to said image processor and electrically connected to said wiring; ~~and~~ connection terminals, said adhering section disposed at least in a portion of a region where said cover opposes said pickup device and such that said connection terminals are exposed; and

an optical path defining unit arranged opposite to said solid state imaging device and defining an optical path to said solid state imaging device.

Claim 31 (Original). An optical device module according to Claim 30, wherein said optical path defining unit retains a lens arranged opposite to said light-transparent cover of said solid state imaging device.

Claim 32 (Currently Amended). An optical device module comprising:

a solid state imaging module component formed by resin-sealing: a module component wiring board on which wiring is formed; an image processor adhered to said module component wiring board and electrically connected to said wiring; and a solid state imaging device in which a light-transparent cover having planar dimensions smaller than those of a solid state image pickup device is ~~attached~~ adhered through an adhering section opposite to ~~the~~ an effective pixel region of said solid state image pickup device, and which is adhered to said image processor and electrically connected to said wiring; in a state that the surface of said light-transparent cover is exposed; and

connection terminals, said adhering section disposed at least in a portion of a region where said cover opposes said pickup device and such that said connection terminals are exposed; and

an optical path defining unit arranged opposite to said solid state imaging device and defining an optical path to said solid state imaging device.

Claim 33 (Original). An optical device module according to Claim 32, wherein an external terminal connected to said wiring is formed on the surface of said module component wiring board reverse to the surface to which said image processor is adhered.

Claim 34 (Original). An optical device module according to Claim 33, wherein said external terminal has a protruding shape.

Claim 35 (Original). An optical device module according to Claim 33, wherein said optical device module further comprises a wiring board on which wiring is formed, and wherein said external terminal of said module component wiring board is connected to said wiring of said wiring board.

Claim 36 (Original). An optical device module according to Claim 32, wherein said optical path defining unit retains a lens arranged opposite to said light-transparent cover of said solid state imaging device.

Claim 37 (Currently Amended). An optical device module comprising:

a wiring board on which wiring is formed;

an image processor adhered to said wiring board and electrically connected to said wiring;

a solid state imaging device in which a light-transparent cover having planar dimensions smaller than those of a solid state image pickup device is ~~attached~~adhered through an adhering section opposite to ~~the~~an effective pixel region of said solid state image pickup device, and which is adhered to said image processor and electrically connected to said wiring;

connection terminals, said adhering section disposed at least in a portion of a region where said cover opposes said pickup device and such that said connection terminals are exposed;

a sealing section for resin-sealing said wiring board, said image processor, and said solid state imaging device in a state that the surface of said light-transparent cover is exposed; and

an optical path defining unit arranged opposite to said solid state imaging device and defining an optical path to said solid state imaging device.

Claim 38 (Original). An optical device module according to Claim 37, wherein said optical path defining unit retains a lens arranged opposite to said light-transparent cover of said solid state imaging device.

Claims 39 – 47 (Canceled).

Claim 48 (New). A solid state imaging device according to Claim 1, wherein said adhering section comprises resin.

Claim 49 (New). A solid state imaging device according to Claim 1, wherein said adhering section is set by light and heat.

Claim 50 (New). A solid state imaging device according to Claim 1, wherein said light-transparent cover is planar.

Claim 51 (New). A solid state imaging device according to Claim 50, wherein said adhering section seals said light-transparent cover to said solid state image pickup device.